

REMARKS

In the Office Action mailed August 4, 2003, the Examiner rejected claims 7-14 and 17-22 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner further rejected claims 7, 17-21 under 35 U.S.C. § 102(b) as being anticipated by Schoolnik et al. and claims 7-14 and 17-22 under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Dillner et al.

By this paper, claims 7 and 17-19 have been amended to more particularly point out and distinctly claim the novel subject matter of this invention. In addition, claims @ have been canceled, without prejudice. Thus, following amendment by this paper, claims 7 and 17-19 are presented for examination. For the reasons set forth below, these claims are believed to be in condition to allowance. Favorable reconsideration of the application, as amended, and in view of the following remarks is respectfully requested.

As an initial matter, Applicant notes that claim 7-14 and 17-22 have been amended or, in the alternative, cancelled, without prejudice. It is submitted, therefore, that the rejections under 35 U.S.C. § 112, first and second paragraphs, have been overcome.

In response to the rejection of claims 7 and 17-19 under 35 U.S.C. § 102(b) as being anticipated by Schoolnik et al., Applicant asserts that the defense of anticipation is improper because the prior art reference does not identically disclose every element or feature of the claimed invention as arranged or connected together as specified in the newly amended claim. More particularly, claim 7 has now been amended to incorporate the limitations recited in claims 8 and 9, now cancelled, which include reaction with a peptide according to SEQ ID NO.: 1, wherein carboxymethylcysteine is substituted for one or more cysteine residues in the peptide.

As indicated by the Examiner, “Schoolnik et al. do[es] not anticipate the SEQ ID NO.: 1.” (See, outstanding Office Action at page 4.) Applicant submits therefore that the incorporation of the limitations of reaction with a peptide according to SEQ ID NO.: 1, wherein carboxymethylcysteine is substituted for one or more cysteine residues in the peptide overcomes the outstanding rejection. It is respectfully submitted, therefore, that claim 7 (and, subsequently, dependent claims 7-19), as amended, overcome the rejection under 35 U.S.C. § 102(b).

In response to the rejection of claims 7 and 17-19 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dillner et al., claim 7 has now been amended to include reaction with a peptide according to SEQ ID NO.: 1, wherein carboxymethylcysteine is substituted for one or more cysteine residues to stabilize peptide structure. Applicant asserts that the substitution of one or more carboxymethylcysteine residues for cysteine residues is not contemplated by Dillner et al. Moreover, Dillner et al. specifically teaches away from a motivation to stabilize peptides of the invention.

Consistent with the foregoing, Dillner et al. teaches, “[m]oreover, these [prior art sequences] have been selected with respect to predicted secondary structure and hydrophilicity. However, these antigens differ from those claimed here.” (See, Dillner et al. at page 2, lines 27-30.) In addition, Dillner et al. teaches, “[i]t must be emphasized that in no instance was any type of computer algorithm or other previously described methods used for peptide selection in the present invention.” (See, Dillner et al. at page 3, lines 3-6.) Furthermore, Dillner et al. teaches that amino acid sequence selection for peptides did not account for nor take into consideration characteristics of peptide structure. To this end, Dillner et al. specifically distinguished itself over available prior art that peptide structure is not considered in the development of the invention.

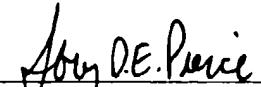
In further contrast to Applicant's invention, Dillner et al. discloses, "[i]t was intended to find peptides based on ORF E7, which should be more immunoreactive and at the same time considerably shorter and thus cheaper and more easy to produce than the earlier described 84 amino acid long peptides." (See, Dillner et al. at page 3, lines 18-22.) Thus, Dillner et al. teaches that shorter sequences are utilized and thus there would be no motivation for those skilled in the art to consider peptide stabilization in shorter sequences. Dillner et al. therefore teaches away from peptide stabilization and, accordingly, negates support that it would be obvious to one of skill in the art to attempt peptide stabilization.

With respect to the foregoing, Applicant asserts that the defense of anticipation is improper because Dillner et al. does not identically disclose every element or feature of the claimed invention as arranged or connected together as specified in the newly amended claims. Moreover, Dillner et al. teaches away from Applicant's invention and therefore is the antithesis of the art suggesting that the person of ordinary skill in the art would go in the claimed direction. In conclusion, Dillner et al. simply does not provide any impetus to do what Applicant has done and, accordingly, the Examiner's case of *prima facie* obviousness is respectfully traversed. It is respectfully requested, therefore, that the Examiner reconsider and withdraw the above rejections under 35 U.S.C. § 102(b) and/or 103(a) to Applicant's claims.

In view of the foregoing, Applicant respectfully asserts that claims 7 and 17-19 are in condition for immediate allowance. In the event that Examiner finds any remaining impediments to the prompt allowance of any of these claims which could be clarified by telephone conference, Examiner is respectfully urged to initiate the same with the undersigned.

DATED this 4th day of November, 2003.

Respectfully submitted,

  
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